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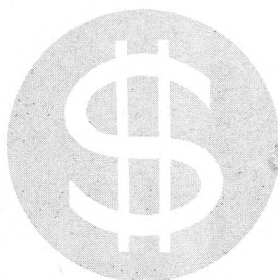
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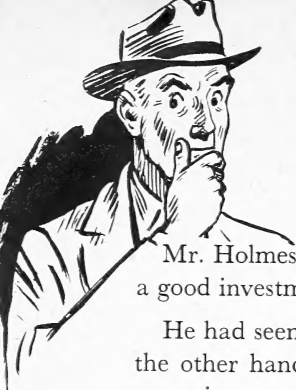
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# DOES FARM TIMBER GROWING PAY IN THE SOUTH



**UNITED STATES DEPARTMENT OF AGRICULTURE  
EXTENSION SERVICE • FOREST SERVICE**

**Leaflet No. 277**



## A FARMER FOUND THE ANSWER

Mr. Holmes, a farmer, looked at his woods and asked himself: "Is timber a good investment as a crop? Or should I cut it off and turn it into cash?"

He had seen the destruction that clear cutting and fires often cause. On the other hand he had observed that young trees, if given a chance, soon grow into sawlog trees. He knew that some of his trees were ready to harvest and others were growing rapidly. A cash offer of \$2,000 was a real temptation. What should he do?

After seeing his county agricultural agent and local forester and getting some ideas about forestry, he decided to sell only part of his timber. He cut the mature and defective trees and left a good stand of younger trees. This reduced the volume of the sale and also the returns. For his pine saw timber and white oak stave trees he received \$1,105. Was this a good deal?

Mr. Holmes could have had \$894.72 more by cutting all his timber. Would this amount placed at interest bring more in 10 years than the same amount left in growing trees? Interest on the money for 10 years would amount to \$296.15. He compared this with a net return or "interest" of about \$625 which would be earned by additional growth of the trees in 10 years. He was well satisfied and also convinced that timber growing pays.

Mr. Holmes saw that he had been wise to keep a good volume of growing trees, which would soon make another valuable crop of timber.

Mr. Holmes learned that by giving some attention and time to growing timber as he does to other crops, and by using the assistance of public agencies, he can work out an effective plan for managing his woodland. Many other woodland owners have had the same experience. As owners learn how to put the principles of forestry into operation, they can expect the returns from farm woods to increase considerably.

## GOOD MANAGEMENT PAYS

Mr. Holmes and other woodland owners want to get the largest regular yield and income from their woodlands. But the average farm woods has been cut over several times and the best timber has been removed. Perhaps it has been burned and left to recover as best it could. In such cases the immediate job is to build up the growing stock of trees in quantity and quality. A low yield of timber, as of most farm crops, does not pay well. Satisfactory returns cannot be had the first year from row crops on worn-out land, because building up the soil takes time. The same is true of a run-down farm woods.

## INVENTORY PER ACRE \*

YEAR	SAWLOGS	PULPWOOD	CORDWOOD	POSTS
1937	2012 Bd.Ft.	5.4 Cords	2.6 Hd'wd	—
1938	21			—
1939				
1940				
1941				
1942	20,000	130	158	121
1943				
1944				—
1945	20			—
1946	3022	6.05	.34	—

*Total Products  
removed in 10 years  
valued at  
\$ 2,464.00*

\* Based on a 34 acre plot of the Crossett Experimental Forest

An example of what can be accomplished by building up a poor farm forest is shown in the illustration. This tract of 34 acres had been heavily cut and contained many low-grade hardwoods and "weed" trees. It had been burned. It was a ragged, run-down pine-hardwood stand. Over a period of 10 years simple forestry was applied in eight light cuttings to remove poor-quality trees and to build up the growing stock. These operations included:

- Thinning young stands and removing "weed" trees.
- Cutting or girdling cull trees.
- Cutting and selling poor-quality marketable trees.

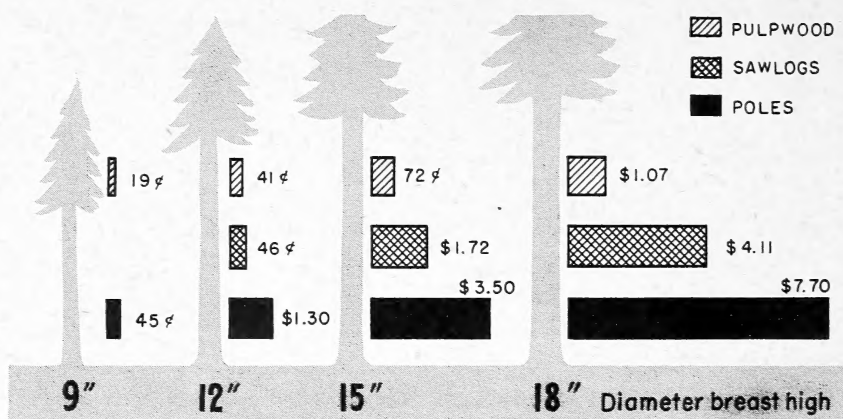
The value of products cut and delivered was \$2,464, yet during the 10-year period the volume of the stand increased from 2,012 board feet per acre to 3,022 board feet. The farm forest was improved at a profit. Pine sawlog timber and young growth increased. Larger returns can be expected.

Removal of poor-quality trees and building up the stand with good trees are necessary steps in a majority of farm woodlands in the South. Light cuttings, removing less than the growth, should be made frequently. These will produce fuel wood, posts, poles, and sawlogs for farm use and for sale. It is a good practice to mark the trees to be taken out with a light blaze or with paint, before cutting begins.

Woodland management on the "Farm Forestry Forty" at Crossett, Ark., has shown a net return of 70 cents per man-hour of labor after deducting all expenses and the value of the stumpage. Under less favorable conditions the labor return may be less. On the other hand, some foresters in the South have reported a dollar an hour or better from farm forestry work.

*How can I get the largest return from my trees?*

# CUT TREES FOR THEIR HIGHEST VALUE



In cutting timber, each tree should be made into products that bring the largest profit. For example, a good 15-inch pine tree could be cut either for pulpwood, sawlogs, or perhaps a pole (see the chart). A tree of this size standing in the woods is worth 72 cents for pulpwood, \$1.72 for sawlogs, and \$3.50 for a pole. Therefore, if a farmer sold his timber for pulpwood he would lose a dollar on each 15-inch tree suitable for sawlogs. If he sold as saw timber he would lose \$1.78 on each 15-inch tree that could meet the requirements for a pole. Cutting for sawlogs, however, could give a better return than is shown here, because the tree might also yield some pulpwood bolts.

Many trees of sawlog size may be of poor quality and not suitable for sawlogs, but they could be used for cross ties, pulpwood, or fuel. Ordinarily only a few trees in a pine stand will meet pole specifications. So a farmer should examine his stand carefully before cutting or selling. He should consider the quality of individual trees and the prices they will bring as different products. In this way he can decide how to utilize them for their highest values.

Commercial operators usually buy timber for just one product, such as pulpwood or sawlogs. So the owner must do his own logging, or have it done under his supervision, if he wishes to get utilization for the highest values. Some localities may have markets for pulpwood and sawlogs only. However, poles may be salable at an outside market if suitable arrangement can be made for trucking. Always contact several buyers for each product before cutting the timber.

With a little experience and observation in cutting and marketing, the timber grower can look at a tree and decide what products it will make. If the stand contains a number of poles or piling, he may decide to harvest these first. A second operation may take out the sawlogs. Next he may

cut pulpwood, which would use smaller trees of poor shape crowding better ones, and wood left from the pole and sawlog cuttings. When there are markets for fuel wood, he can cut this as a clean-up operation, leaving the stand in good condition.

An owner can well afford to appraise individual trees for their highest value and sell them accordingly. The farmer interested in timber growing as a business will find this a profitable practice.

## LOGGING PROFITS DEPEND ON SIZE OF TREE

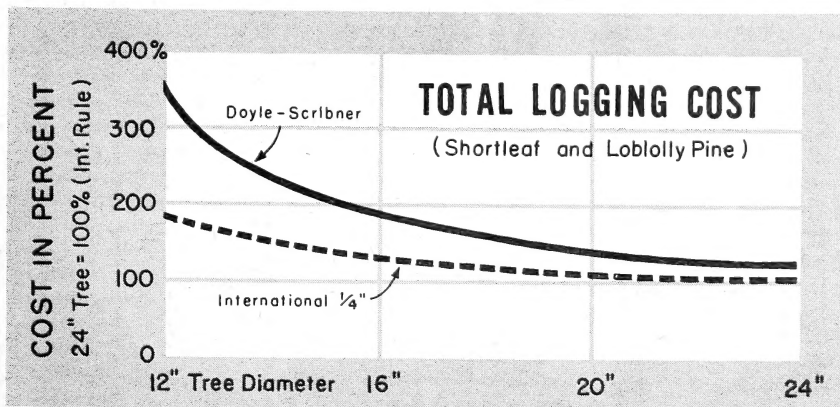
Considering the amount of salable products, small trees cost more to log than large ones. The question is often asked, "How much more?" Studies of shortleaf and loblolly pine logging operations have shown some wide differences in logging costs. The chart on this page shows the total cost of logging different-sized trees measured by the International  $\frac{1}{4}$ -inch log rule and the Doyle-Scribner rule. Logging costs include felling, bucking, skidding, loading, and truck-hauling.

The curve for each log rule is based on the cost of logging a 24-inch tree, which is taken as 100 percent. The cost of logging for a 16-inch tree sold by the Doyle-Scribner rule, for example, is about 178 percent, or 78 percent higher than for a 24-inch tree.

According to the curve for the International log rule, it costs 85 percent more to log a 12-inch tree than a 24-inch tree. The two curves cannot be compared directly. They are different because a larger number of small logs are required to measure 1,000 board feet by the Doyle-Scribner rule than by the International log rule, which gives practically mill-tally figures. Both curves make it clear that the smaller trees are more expensive to log.

A timber owner can apply this idea in a practical way. During periods of low prices, he can help to keep his income steady by cutting larger size trees and thus reducing his logging costs.

Woodland owners gain in several ways by growing larger trees. Logging costs are kept low. Quality and value ordinarily increase.



# MORE DOLLARS BY LOGGING YOUR OWN TIMBER

A farmer would not think of selling potatoes in the ground or cotton on the stalk. This should also apply to forest farming. Unfortunately, a large percent of farm timber is sold as stumpage, or standing in the woods. The owner will profit by cutting and selling his timber as products. For many years sawlog stumpage brought only about one-third of the value of the delivered product. In some localities, however, pine stumpage value has increased to about 54 percent of the price of delivered sawlogs. Many farmers have time during the winter months and many have the equipment to do small logging jobs. Besides gaining a larger return, logging by the owner greatly benefits the forest because he is more careful in selecting and cutting his trees and in leaving the stand in condition to produce other crops of timber.

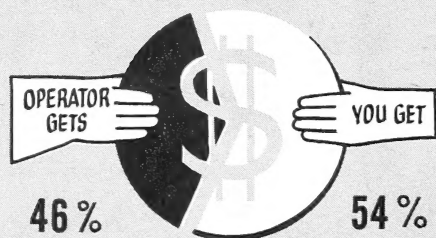
It is not good business to cut over the whole area of woods at one time. For example, a reasonable plan for managing a woodland of 60 acres would call for cutting 6 acres during 1 year. This could be done easily enough by the owner with labor and teams. At this rate, cuts could be made each year for 10 years, until the entire woods has been worked over. After that, cutting would begin again on the first 6 acres. Good trees would always be left growing on every area. Overcrowding and slowing down the growth is avoided by cutting each area at frequent intervals. This will keep timber yields high.

If a farmer does not have a heavy truck for hauling logs, he can do the felling and contract the job of hauling. In many cases the annual cut may be planned to thin and improve the farm woods, taking out trees of pulpwood size. Most farmers are equipped to get out pulpwood and other small forest products. Probably more and more farmers will cut their own products as they become interested in growing timber as a crop.

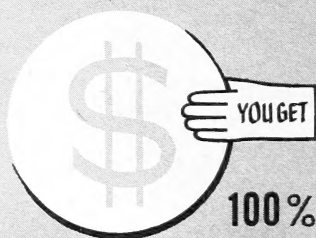
Remember that under favorable conditions your income from the farm woods can be greatly increased by using your own labor and equipment in harvesting timber products.

## YOUR FOREST DOLLAR

### SELLING STUMPAGE



### LOGGING OWN CROP

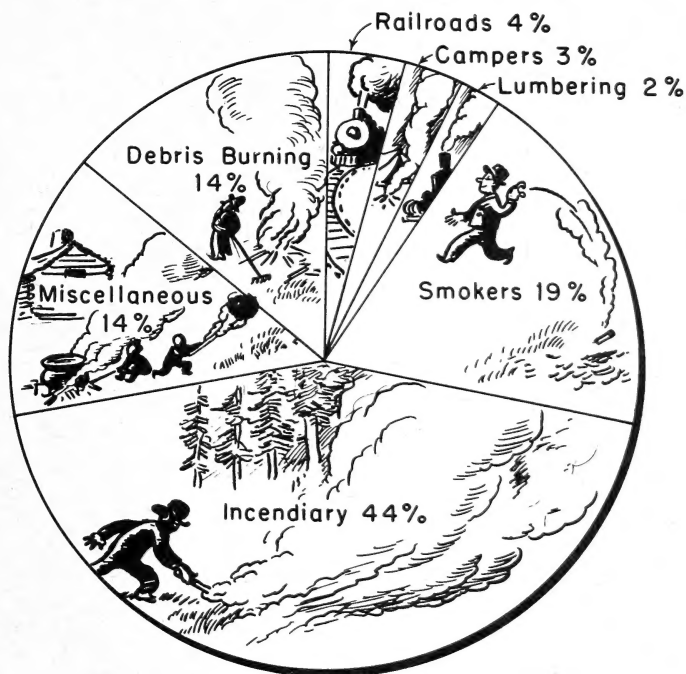




# CONTROL WILDFIRES—PROTECT GROWING TREES

Many farm woodlands have been seriously abused by careless burning. Uncontrolled fires have killed much timber and young growth. Destructive fires followed by bug damage have riddled once-promising stands of pines. Less valuable hardwood growth frequently takes over. The price of carelessness with fires is extremely high.

Every owner should have a definite plan in mind for protecting his woodland. He should get other farmers in the community to agree to help in suppressing any fires that may break out. During very dry periods he should keep on the alert for fires.



*Causes of forest fires in the South*

Fire control measures organized by State Forestry Departments are fairly simple, but full cooperation of owners is necessary to make control effective. In order to give your land the best possible protection, get full information on the organized protection in your county. If there is no fire control organization in your county, discuss the need for it with your county agent.

*How can I apply these ideas to my woods?*

# **FOUR**

## **WAYS TO MAKE**

# **FARM TIMBER GROWING PAY**

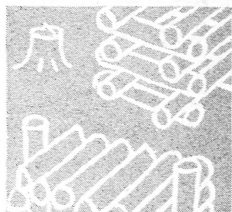
### **1 CONTROL WOODS FIRES**

...to protect seedlings and larger young trees. Cooperate with your neighbors to keep wildfires out of the woods.



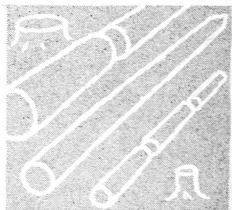
### **2 MAKE IMPROVEMENT CUTTINGS AND THINNINGS**

...in young timber frequently. Remove poor-quality trees—some can be sold or used for fuel, posts, farm lumber, or pulpwood. Cut or girdle culls—leave plenty of good trees for sawlogs.



### **3 SELL TREES FOR THEIR HIGHEST VALUE**

Before cutting, check on markets. Cut each tree for whatever product gives the best return—pole, sawlog, tie, or pulpwood. Always consider the quality of individual trees and the products that will bring highest values.



### **4 LOG YOUR OWN TIMBER CROP**

Sell products rather than stumpage. Do your woods work in the fall and winter, to keep farm labor busy in those seasons. Haul your products to market if you have the right equipment.



**FOR FURTHER INFORMATION:** Forestry information, demonstrations of practices, and on-the-ground services are available. Call on your county agricultural agent or local forester, or write to the State Forestry Department. They can give you information and assistance on managing woodlands, marketing timber products, and other phases of forestry work.

This leaflet was prepared by W. K. Williams, Extension Forester, Extension Service, with the aid of M. M. Bryan, Forester, Forest Service.